diarrhœa and dyspepsia. Of the mental derangements, hallucinations, and delusions causing dejection and fear are common. A more miserable object than a confirmed Hindu cocaine-eater cannot be pictured. The drug is altogether more disastrous in its effects than is opium or any other narcotic used in India. To quote the words of a victim, "To eat cocaine is to court misery." It has none of the joys of opium, and is infinitely more destructive.—*British Medical Journal*, 1902, No. 2166, p. 1020.

A New Arsenic Preparation (Atoxyl); its Use in Skin Diseases.—DR. W. SCHILD has been studying this drug before attempting its use in practice. Atoxyl is a white, odorless powder containing about 37 per cent. of arsenic and soluble in five parts of warm water. In its effect upon animals the toxicity was found to be only one fortieth that of the quantity of arsenic which it contains. Hence it affords, according to the investigator, a means of introducing into the system a larger quantity of arsenic than can be introduced safely by other means. Small doses by mouth readily produce gastric disturbance. Hence the author decided to administer the drug only by hypodermic injection. Beginning with two-thirds of a drop of a 20 per cent. solution, the dose is gradually increased until it reaches five times this quantity, at which point it remains during the remainder of the period of treatment. Temporary discontinuance of treatment is occasionally necessitated by the appearance of chills, dizziness, and headache. Favorable results were obtained in cases of psoriasis, lichen ruber, and other chronic dermatoses. While atoxyl will not effect a complete cure of psoriasis unaided by external treatment, neither will other forms of arsenic. It, however, materially aids and quickens the action of external treatment. In fourteen cases of lichen ruber treated exclusively by atoxyl injections complete cures were obtained without a single exception. The average duration of the period of treatment in these cases was fifty days.—*Berliner klinische Wochenschrift*, 1902, No. 13, p. 495.

Influence of Alcohol on Metabolism in Fever.—DR. A. OTT has found by careful analysis, as have others, that alcohol in fever prevents proteid dissolution to about the same degree as an isodynamic quantity of carbohydrates. The conclusions to be drawn are that, though alcohol should not be thus employed as food, no contraindications exist as to its use in fever in moderation, and especially in the chronic fevers of pulmonary diseases its general stimulation is but desirable.—*Archiv für experimentelle Pathologie und Pharmakologie*, 1902, vol. xlvii. p. 267.

Blood Poisons.—DR. A. KEIL has studied one of the phases of this subject. The various drugs which have a deleterious effect upon the blood may be conveniently divided into six classes. The first comprises the agglutinins, which act by changing the physical conditions of the red blood cells so that they adhere to each other and thus occlude the vessels; ricin and abrin are the two best-known examples. Hæmolysins form the second group; these dissolve out the hæmoglobin which deposits in the liver and kidneys, while the stromata of the cells form multiple capillary emboli; arsenuretted hydrogen, phallin, helvellic and quillajic acids, senegin, sapotoxin, and solanin belong to this group. Potassium chlorate, pyrogallic acid, and chrysarobin constitute the third class, which is characterized by the formation of methemoglobin. Hydrocyanic acid and carbon monoxide belong to the fourth, in which special hæmoglobin compounds are formed. Fifteen metals are capable of entering into union with hæmoglobin, thus giving rise to the fifth group, while the sixth is made up of substances such as phenylhydrazin and aniline, which are capable of producing partial necrosis of the erythrocytes. The author has studied the effects of the metals on the blood as revealed by the microscope. Granular degeneration of the red cells was present to a marked degree in all animals, and in those with nucleated red cells it could be seen that the process was really a disintegration of the nucleus within the cell or after extrusion. In mammals, however, normoblasts seemed to play no part in the process. It is probable that the granules represent metallic hæmoglobin compounds.—*Archives International de Pharmacodynamique et de Thérapie*, 1902, vol. x. p. 121.

Poisoning by Mussels.—Dr. J. Thesen has been studying one of the phases of this subject. The symptoms following the ingestion of poisonous mollusks may assume one of three types, viz.: (1) The erythematous and least dangerous form, a rapidly developing exanthem of a very transient nature appears, and with it there is general malaise and headache. (2) The symptoms may be chiefly intestinal, and there may appear a more or less severe gastro-enteritis shortly after partaking of the mussel, or this comes on after a period of incubation and is accompanied by fever. (3) The most severe or paralytic type, characterized by acute, peripheral paralysis and resembling curare poisoning. The author has studied this last form. In the cases observed by him either death set in so rapidly through paralysis of respiration that no real dyspnœa was present or else the symptoms were very transitory. All the muscles of the body may be involved without any definite order, and psychical excitement and muscular ataxia may be pronounced. The mode of death, with intact consciousness, is also peculiar. Nausea, with vomiting, generally occurs, but the latter symptom is not forcible or characteristic. Constipation generally exists. With so rapid a course all therapy is worthless, but if seen in time the stomach must be washed out, the patient ordered to be as quiet as possible, and heart and respiration stimulated in the usual way, if flagging. Those patients who come to autopsy have shown some swelling of the spleen and lymph nodes of the intestines with slight gastro-enteric irritation.

To study the toxicity of the mussels they were removed from their shells, placed in cold 96 per cent. alcohol for twenty-four hours, dried on a water-bath comminuted by triturating with sand, and then extracted by boiling with alcohol, acidified with hydrochloric acid. The alcoholic solution was then evaporated and the residue dissolved in water, and this extract employed for subcutaneous injections into animals. Great variations were found in the degree of toxicity, for while the extract prepared from mussels from a neighborhood where fatal accidents had occurred killed mice, rats, and rabbits in a few minutes, those from other places, especially if collected later in the year, were much less poisonous, and even in some instances harmless. Where death occurred the symptoms were in general the same, the trunk